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09/011,160	01/20/1998	HAROLD HALL		9528

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SMITH, GAMBRELL & RUSSELL, LLP  
1850 M STREET, N.W., SUITE 800  
WASHINGTON, DC 20036

EXAMINER

OCAMPO, MARIANNE S

ART UNIT	PAPER NUMBER
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1723

19

DATE MAILED: 01/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/011,160

Applicant(s)

HALL, HAROLD

Examiner

Marianne S. Ocampo

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-41 is/are pending in the application.
- 4a) Of the above claim(s) 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-16, 18, 22, 23, 25-30, 33-34 and 36-41 is/are rejected.
- 7) ☒ Claim(s) 17, 19-21, 24, 32 and 35 is/are objected to.
- 8) ☒ Claim(s) 31 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☒ Interview Summary (PTO-413) Paper No(s) 18.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Election/Restrictions***

1. Newly submitted claim 31 (renumbered under CFR 1.126 from claim 34) is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the invention claimed by claim 31 is directed to a process of filtering ferromagnetic material from a fluid in which said (ferromagnetic) material is suspended, which is considered to be independent and distinct from the subject matter of the originally presented claims 1 – 11, which is directed to a magnetic device for filtering ferromagnetic material from a fluid in which said (ferromagnetic) material is suspended comprising of a magnet and a pair of metal plates each having a plurality of recesses along an outer perimeter of each plate, and further provided with a distribution plate having a plurality of apertures characterized in that the distribution plate, the magnet and the metal plates are each provided with an aperture adapted to receive a tube through which a fluid can pass and the tube providing a means for isolating within the device fluid passage in the tube from fluid flow through the recesses. The reason for their distinctness is that the process of filtering ferromagnetic material as claimed by claim 31 can be practiced by another and materially different magnetic filtration device from the one claimed by original and previously examined claims 1 – 11, such as by the magnetic filter device (1 , 5) taught by Frei in US Patent 2,14,764, in figs. 1-10.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 31 has been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### *Status of the Claims*

2. Claims 1 – 11 has been canceled by amendment filed on 10-15-02 and according to a telephonic interview conducted on 12-19-02 with Mr. Dennis Rodgers.

3. Claims 15 – 44, renumbered under Rule 1.126, as 12 – 41, are still pending. Claim 31 (presented as claim 34 by amendment (Paper no. 17) on 10-15-02) has been withdrawn from consideration as a result of a restriction requirement.

### *Specification*

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the claimed subject matter in claim 22 (presented by amendment as claim 25), “further comprising a means for maintaining said recesses and said apertures in alignment”,

lacks proper antecedent basis in the specification. It is further unclear which structure or structures are being invoked by this limitation.

### ***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “means for maintaining the recesses and apertures in alignment” as in claim 22, must be shown or the feature should be canceled from the claim. **No new matter should be entered.**

6. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Previously Indicated Allowable Subject Matter***

7. The indicated allowability of the subject matter of original claim 2 is withdrawn in view of newly presented arguments (case law, *In re Harza*) and analysis of the prior art by the examiner. Rejections based on the prior art reference (i.e. Morrisk ) and case law (*In re Harza*) follow.

***Claim Objections***

8. Claims 14, 27, 30 and 32 are objected to because of the following informalities:

- a). In claim 14, the word “received” in line 2 should be changed to “receive”.
- b). In claim 27, the word “firsts” in line 8 should be changed to “first”.
- c). In claim 30, the word “premiere” in line 6, should be changed to “perimeter”.

Furthermore, in claim 30, the phrase “a device comprising a device for filtering ferromagnetic material ...” should be changed by deleting “comprising a device” in line 2, since this is unnecessary and redundant.

- d). In claim 32, the word “mans” in line 8, should be changed to “means”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 12 – 16, 18, 22 – 23, 25 – 30, 33 – 34 and 36 - 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrisk (US 5,389,252).

11. With regards to claims 12 and 27, Morricks discloses a device for filtering ferromagnetic material suspended in a fluid, comprising a magnet (24) and a pair of metal plates (only one is shown, 26), the magnet (24) having faces of opposite magnetic polarity, each of the plates (26) being disposed in abutment with a respective one of the faces of the magnet (24), each of the plates (only one 26 is shown) comprising a plurality of recesses (28) about an outer perimeter of the plate (26) to form radially extending magnetic pole pieces which extend beyond an outer perimeter of the magnet faces wherein opposed recesses on the first and second plates define passage means for the fluid and the opposed pole pieces define regions to which the ferromagnetic material is attracted and retained thereto, as in cols. 2 - 3. Although Morricks does not explicitly disclose (since the second plate 26 is not shown in any figures but actually disclosed that a second plate 26 exists in col. 3, lines 55 - 59 by the disclosure "metal (disk/plate 26) on both sides of the magnet (24)") that the recesses and pole pieces of the first and second plates (26) being oriented such that they are aligned with respect to each other, it is considered obvious to one of ordinary skill in the art to arrange them in that manner for the simplest design choice in order to allow continuous flow of fluid through the recesses of the first and second plates and attraction of ferromagnetic material from the fluid. Furthermore, the case law, In re Harza [274 F.2d, 124 USPQ 378 (CCPA 1960)] in which a mere duplication of parts (in this instance, duplication of the metal plates from one to two) for a multiplied effect [which includes placing the two plates in a manner such that they are mirror-identical or symmetrical (i.e. having their recesses and pole pieces being aligned)] does not carry any patentable weight or

significance unless a new or unexpected result is produced. See also M.P.E.P. section 2144.04 part VI paragraph B.

12. Regarding claims 13 and 28, Morrick also discloses the opposed recesses (defined by notches 28) on the first and second plates (26) also define regions from which the ferromagnetic material is repelled (i.e. the turbulence and flow of fluid through the recesses or notches 28 prevent the attraction (i.e. creates the effect of repelling) of the ferromagnetic material thereto), as in col. 3, lines 20 - 47.

13. Concerning claim 14, Morrick further discloses the magnet (24) and the metal plates on both sides thereof (only one is being shown, 26) being each provided by a central hole which is adapted to receive a tube (20) through which the fluid can pass, the tube (20) providing means for isolating within the device (2) fluid passage in the tube (20) from fluid flow from through the recesses (28), as in figs. 1 - 3.

14. With respect to claim 15, Morrick also discloses the device (2) further comprising a distribution plate (4) having a plurality of apertures (10) which are alignable with the recesses (28 and central hole thereof) of the plates (26) and the apertures (10) being the only passage means of fluid to said metal plates, as in figs. 1 - 3.

15. Regarding claim 16, Morrick discloses the distribution plate (4), the magnet (24) and the metal plates (26) being each provided with a central hole adapted to receive a tube (20) through which fluid can pass and the tube (20) providing means for isolating within the device (2), fluid passage in the tube (20) from fluid flow through the recesses (28), as in figs. 1 – 3.

16. With regards to claim 18, although Morrick does not explicitly disclose the material of construction of the distribution plate (4), that is being made of a non-ferromagnetic material, it is considered obvious that since no ferromagnetic material is being trapped by the distribution plate as fluid passes through, that it (the plate 4) is most likely formed of a non-ferromagnetic material.

17. Concerning claim 22, Morrick discloses the device (2) in the form of the threads (13) on the tube (20) as means for maintaining the recesses (28) and the apertures (10) in alignment, as in fig. 3.

18. With regards to claim 23, Morrick discloses the magnet (24) comprising a magnetic material which will generate a magnetic force/field between the metal plates (26) of sufficient strength to attract ferromagnetic material from fluid passing therebetween, as in cols. 2 – 3.

19. With respect to claims 25 - 26, Morrick also discloses the device further comprising a housing having a means at one (upper) end for receipt by a containing means (mounting

plate/cover base, 22) of the fluid, the containing means (22) comprising an input means (inlet for unfiltered fluid) and output means (outlet for filtered fluid) and the housing having means at the other (lower) end for receiving a fluid filter (2), an output (16) of which fluid filter (2) is continuous with a fluid passageway passing through an aperture (central hole) in the magnet (24) and also continuous with the input means (outlet for filtered fluid) to the containing means (22) and said output means (inlet for unfiltered fluid) from the containing means being continuous with the apertures (10) in the distribution plate (4) and the recesses (26) in the metal plates, as in figs. 1 – 3. Also in claim 25, the examiner is unclear what the phrase “said output means from said containing means being continuous with said apertures **in** said recesses in said metal plates” in the last two lines of the claim. The examiner has considered this limitation to contain typographical errors and that the highlighted word “in” should have been “and”.

20. Concerning claim 29, Morrisk further discloses the fluid filter (2) being positioned downstream of the magnet (24) and the second one of the pair of metal plates, as in fig. 3. In this claim, the limitation “said second pair of metal plates” is considered to be unclear and lacks proper antecedent basis since there is no second pair of metal plates so far been mentioned prior to this claim and there is only one pair (i.e. comprised of the first and second plates) of metal plates. The examiner has interpreted this limitation to contain some typographical errors in which the limitation should have been written as “said second one of the pair of metal plates”.

21. With regards to claim 30, Morrick also discloses a process for filtering ferromagnetic material from a fluid in which the material is suspended comprising passing the fluid through a device (2, 22) [comprising a device] for filtering ferromagnetic material from a fluid which the material is suspended, the device comprising a magnet (24) and a pair of metal plates (26), and the magnet (24) having faces of opposite magnetic polarity and each of the plates (26) being disposed in abutment with a respective one of the magnet faces (sides) and each plate comprising a plurality of recesses (28) about an outer perimeter of the plate (26) to form radially extending magnetic pole pieces which extend beyond an outer perimeter of the magnet faces and the recesses of the plates (26) defining passage means for the fluid and the pole pieces thereof defining regions to which the ferromagnetic material is attracted to and retained, as in cols. 2 – 3 and figs. 1 – 3. Although Morrick does not explicitly disclose (since the second plate 26 is not shown in any figures but actually disclosed that a second plate 26 exists in col. 3, lines 55 – 59 by the disclosure “metal (disk/plate 26) on both sides of the magnet (24)”) that the recesses and pole pieces of the first and second plates (26) being oriented such that they are aligned with respect to each other, it is considered obvious to one of ordinary skill in the art to arrange them in that manner for the simplest design choice in order to allow continuous flow of fluid through the recesses of the first and second plates and attraction of ferromagnetic material from the fluid. Furthermore, the case law, *In re Harza* [274 F.2d, 124 USPQ 378 (CCPA 1960)] in which a mere duplication of parts (in this instance, duplication of the metal plates from one to two) for a multiplied effect [which includes placing the two plates in a manner such that they are mirror-identical or symmetrical (i.e. having their recesses and pole pieces being aligned)] does not carry

any patentable weight or significance unless a new or unexpected result is produced. See also M.P.E.P. section 2144.04 part VI paragraph B.

22. Concerning claim 33, Morrick discloses a device for filtering ferromagnetic material from a fluid in which the (ferromagnetic) material is suspended comprising a magnet (24) having a first face (upper side) and a second face (opposite/lower side) with the faces being of opposite magnetic polarity, a first plate (26) magnetically fixed to the first face (upper side) of the magnet (24) and a second plate (mirror image/identical plate/disk to the first disk 26, not shown) magnetically fixed to the second face (opposite/lower side) of the magnet (24), as in cols. 2 – 3 (“with metal (plates) on both sides of the magnet “, as in col. 3, lines 58 – 59), wherein the first and second plates (26) both have a plurality of recesses (28) about an outer perimeter of the plates to form radially extending pole pieces extending beyond an outer perimeter of the first and second faces of the magnet (24) and the recesses defining passages for the fluid and the pole pieces defining regions to which the ferromagnetic material is attracted and retained, as in cols. 2 – 3 and figs. 1 – 3. Although Morrick does not explicitly disclose [since the second plate 26 is not shown in any figures but disclosed that a second plate 26 exists in col. 3, lines 55 – 59 by the disclosure “metal (disk/plate 26) on both sides of the magnet (24)”] that the recesses and pole pieces of the first and second plates (26) being oriented such that they are aligned with respect to each other, it is considered obvious to one of ordinary skill in the art to arrange them in that manner for the simplest design choice in order to allow continuous flow of fluid through the recesses of the first and second plates and attraction of ferromagnetic material from the fluid.

Furthermore, the case law, *In re Harza* [274 F.2d, 124 USPQ 378 (CCPA 1960)] in which a mere duplication of parts (in this instance, duplication of the metal plates from one to two) for a multiplied effect [which includes placing the two plates in a manner such that they are mirror-identical or symmetrical (i.e. having their recesses and pole pieces being aligned)] does not carry any patentable weight or significance unless a new or unexpected result is produced. See also M.P.E.P. section 2144.04 part VI paragraph B.

23. Regarding claim 34, Morrick discloses the recesses in the first and second plates (26) open out at spaced intervals about a peripheral edge of the plates, as in figs. 1 – 2.

24. With regards to claims 36 – 38, Morrick further discloses the recesses and the pole pieces of the first and second plates being of common configuration. Here the examiner has considered them to be mirror image or identical to each other, since there is no teaching by Morrick that the metal plates (26) on both sides of the magnet (in col. 3, lines 55 – 59) are different in any way from each other, so therefore, they are of the same/common configuration.

25. Concerning claim 39, Morrick also discloses the metal plates (26) being releasably fixed to the magnet and in direct contact with the magnet (24), as in figs. 1 – 3 and in cols. 2 – 4.

26. With respect to claim 40, Morrick discloses a method of filtering ferromagnetic material from a fluid in which the (ferromagnetic) material is present, comprising passing the

ferromagnetic material together with the fluid through the device according to claim 34 above, as in cols. 2 – 3 and in figs. 1 – 3.

27. Regarding claim 41, Morricks further disclose a method of assembling the device according to claim 34 above, comprising fixing the first and second plates (26) to (both sides of) the magnet, as in cols. 2 – 3.

***Allowable Subject Matter***

28. Claims 17, 19 – 21, 24, 32 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

29. The following is a statement of reasons for the indication of allowable subject matter: the closest prior art is Morricks (US 5,389,252). Morricks has failed to disclose or rendered obvious the following limitations of the claimed device, in particular the limitation of the tube having an outer face being provided with a recess which can receive a retaining means which is able to keep the distribution plate in abutment with an axially closer of the metal plates, as in claim 17, and the limitation of each of the recesses further being provided with one or a plurality of slots, as in claim 19, and the limitation of an outer edge of each of the pole pieces further provided with one or a plurality of slots, as in claim 20, and the limitation of the outer edges of

the facing pole pieces being curved towards one another, as in claim 21, and the limitation of the metal plate which is impinged first by fluid flow through the device being thicker than the other metal plate through which the fluid leaves the device, as in claim 24, and the limitation of each of the recesses and an outer edge of each of the pole pieces further provided with one or a plurality of slots, as in claim 32, and lastly, the limitation of the pole pieces having formed therein radial slots, as in claim 35.

*Response to Amendments and Arguments*

**30. This action is non-final.**

31. Applicant's arguments filed 10-15-02 have been fully considered but they are not persuasive. In response to applicant's arguments (see pages 9 – 11) that first, Morricks device features only a single metal plate (26) and therefore there could be no alignment of the recesses and the pole pieces of the first metal plate with those of a second metal plate, and second, applicant's assumption that the examiner has mistakenly considered plate 4 of Morricks to be the second plate of these metal plates, the examiner disagrees with both arguments. The examiner did not make an assumption nor considered plate 4 to be the second metal plate. What the examiner has considered a second metal plate existing in the device of Morricks, comes from the disclosure of Morricks that a second metal plate/disk like disk 26 could be placed on both sides of the magnet (24), as in col. 3, lines 48 – 60. The addition of the second metal disk/plate 26 (i.e.

having metal on both sides of the magnet) on the other side of the magnet increases the ability to attract ferromagnetic material and the level of magnetic force to which the oil/fluid containing the ferromagnetic material would be exposed to.

### *Conclusion*

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (703) 305-1039. The examiner can normally be reached on Mondays to Fridays from 8:00 A.M. to 4:30 P.M..

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

34. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



M. S.O.

January 13, 2003



W. L. WALKER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700